Low physical activity and COPD: Prognosis and handling of this clinical problem

Chronic obstructive pulmonary disease (COPD) is considered a multidimensional disorder since, in addition to the lung disease; it also has important systemic manifestations and is associated with significant comorbidities. Respiratory and anxious-depressive symptoms, together with the Western lifestyle, often lead to a progressive limitation in the level of physical activity. This leads to higher levels of depression as well as to cardiovascular and skeletal muscle deconditioning along with alterations in bone metabolism and quality. All these changes increase the negative impact on the level of physical activity, which continues its decline, generating a progressive vicious circle with important consequences in different clinical outcomes: Development of or increased severity in different comorbidities, more hospitalizations and increased mortality. Therefore, it is necessary to improve the clinical management of COPD patients by early detecting inappropriate low levels of activity and optimizing the treatment. The latter should necessarily include the treatment of both respiratory and psychological symptoms, while attempting to directly incentivate the increase in the level of activity. Thus, the strategy must include bronchodilators (long-acting beta-agonists and anticholinergic drugs), pulmonary rehabilitation (mainly general training) and behavioral changes. To determine and monitor the level of physical activity is also an important point of the management. For this purpose, different instruments have been developed and are now available, including actigraphs, pedometers and questionnaires. Physical activity is a key element in COPD prognosis and therefore low levels of daily activity must be detected, monitored and properly treated.

Biography
Joaquim Gea has obtained his MD (1979) and PhD (1989) degrees at the Universitat de Barcelona, being Specialist in both Internal Medicine and Respiratory Medicine. He is the Head of the Respiratory Department at Hospital del Mar, full Professor and Dean in the School of Medicine at Universitat Pompeu Fabra, has been Visiting Professor at McGill (1994-1995) and Johns Hopkins (2010-2011) universities and Deputy Director of the Spanish Network of Excellence for Research in Respiratory Diseases (CIBERES). He has been funded by 65 competitive grants, including 4 projects from the European Commission and published more than 260 original articles and reviews in peer reviewed journals as well as 50 book chapters.

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